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EXHIBIT "H"

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Edward A Diana County Executive

DEPARTMENT OF HEALTH

Jean M. Hudson, M.D., M.P.H. Commissioner of Health

> 124 Main Street Goshen, New York 10924

Commissioner/Administration

(845) 291-2332

Nursing

(845) 291-2330

Environmental Health

(845) 291-2331

Early Intervention

(845) 291-2333

Fax: (845) 291-2341 www.orangecountvgov.com

To Whom It May Concern:

We have received your Department of Health approval letter stating your approval to provide services to Early Intervention children. Thank you for expressing an interest in providing services to children in Orange County. Since I am not contracting with individuals I have attached for your use a list of agencies, including a contact name and phone number.

I hope you find this helpful in pursuing EI experience.

Sincerely,

Sheila Warren Director of Intervention Services 10/15/07

Edward A Diana County Executive

DEPARTMENT OF HEALTH

Jean M. Hudson, M.D., M.P.H.

Commissioner of Health

124 Main Street Goshen, New York 10924

Goshen, New York 10924
Commissioner/Administration (845) 291-2332

Nursing (845) 291-2330 Environmental Health (845) 291-2331

> Fax: (845) 291-2341 www.orangecountygov.com

(845) 291-2333

To Whom It May Concern:

Thank you for your recent phone call expressing an interest in providing services to children in Orange County. Since I am not contracting with individuals I have attached for your use a list of agencies, including a contact name and phone number.

Early Intervention

I hope you find this helpful in pursuing EI experience.

Sincerely,

Sheila Warren
Director of Intervention Services

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EXHIBIT "I"

Title 10: Rules and Regulations

Effective Date: July 17, 1997

69-4.30 Computation of rates for early intervention services provided to infants and children ages birth to three years old and their families or caregivers.

- (a) The commissioner shall annually determine the rates for approved early intervention services and evaluations provided to eligible children, subject to the approval of the director of the budget. For payments made pursuant to this section for early intervention services to Medicaid patients, reimbursement shall be based upon a uniform payment schedule with discrete prices as set forth in subdivision (d) of this section. To be eligible to receive reimbursement pursuant to this section, providers must be approved to provide early intervention services pursuant to Article 25 of the Public Health Law.
- (b) For purposes of this section, a billable visit shall mean a face to face contact for the provision of authorized early intervention services between a provider of early intervention services and the individual(s) receiving such services, except for service coordination as described in subdivision (c)(3) of this section. Duration shall mean the time spent by a provider of early intervention services providing direct care or client contact. Activities such as case recording, training and conferences, supervisory conferences, team meetings and administrative work are not separately billable activities.
- (c) Reimbursement shall be available at prices established pursuant to this section for the following early intervention program services:
- (1) Screening as defined in section 69-4.1(II) of this Subpart and performed in accordance with section 69-4.8 of this Subpart. A provider shall submit one claim for a screening regardless of the number of visits required to perform and complete a screening. Reimbursement may be provided for up to two screenings of a child suspected of having a developmental delay in any twelve month period without prior approval of the Early Intervention Official. The Early Intervention Official shall approve and notify the department of any additional screenings provided to a child within the twelve month period. If additional screenings are necessary, such notice shall be provided on a monthly basis on forms provided by the department. Reimbursement shall not be provided for screenings performed after a child has been found eligible for early intervention services.
- (2) Multidisciplinary evaluation as defined in section 69-4.1(m) of this Subpart and performed in accordance with section 69-4.8 of this Subpart. Reimbursable evaluations shall include core evaluations and supplemental evaluations. A provider shall submit one claim for a core or supplemental evaluation regardless of the number of visits required to perform and complete the evaluation.
- (i) A core evaluation shall include a developmental assessment, a review of pertinent records and a parent interview as specified in section 69-4.8(a)(4) of this Subpart, and may include a family assessment.
- (a) A developmental assessment shall mean procedures conducted by qualified personnel with sufficient expertise in early childhood development who are trained in the use of professionally acceptable methods and procedures to evaluate each of the developmental domains: physical development, cognitive development, communication development, social or emotional development and adaptive development.
- (b) A family assessment shall mean a voluntary, family-directed assessment conducted by qualified personnel who are trained in the use of professionally acceptable methods and procedures to assist the family in identifying their concerns, priorities and resources related to the development of the child.
- (ii) Supplemental evaluations shall include supplemental physician or non-physician evaluations and shall be provided upon the recommendation of the multi- disciplinary team conducting the core evaluation and agreement of the child's parent. A supplemental evaluation may also be provided in conjunction with the core evaluation by a specialist trained in the area of the child's suspected delay or disability who is present during the core evaluation as required by section 69-4.8(a)(3) of this Subpart and who provides an in-depth assessment of the child's strengths and needs in such area. Supplemental evaluations provided subsequent to the child's Individualized Family Service Plan (IFSP) must be required by and performed in accordance with the IFSP as specified in section 69-4.8(a)(13) of this Subpart.
- (a) Supplemental physician evaluation shall mean an evaluation by a physician licensed pursuant to article 131 of the Education

Law for the purpose of providing specific medical information regarding physical or mental conditions that may impact on the growth and development of the child and completing the required evaluation of the child's physical development as specified in section 69-4.8(a)(4)(i)(a) of this Subpart, or assessing specific needs in one or more of the developmental domains in accordance with section 69-4.8(a)(4)(iv) of this Subpart.

- (b) Supplemental non-physician evaluation shall mean an additional evaluation for assessing the child's specific needs in one or more of the developmental domains in accordance with section 69-4.8(a)(4)(iv) of this Subpart. Information obtained from this evaluation shall provide direction as to the specific early intervention services that may be required for the child. Supplemental non-physician evaluations may be conducted only by qualified personnel as defined in section 69-4.1(jj) of this Subpart.
- (iii)(a) A multidisciplinary evaluation consisting of a core evaluation and up to four supplemental evaluations (which may include any combination of physician and non-physician evaluations) may be reimbursed within a 12 month period without prior approval of the Early Intervention Official to develop and implement the initial IFSP and subsequent annual IFSPs. The Early Intervention Official shall approve and notify the department of any additional core or supplemental evaluations provided to a child within a twelve month period. If additional core or supplemental evaluations are necessary, such notice shall be provided on a monthly basis on forms provided by the department. Additional core or supplemental evaluations provided subsequent to the child's initial IFSP must be required by and performed in accordance with the IFSP as specified in section 69-4.8(a)(13) of this Subpart.
- (b) Certain evaluation and assessment procedures may be repeated if deemed necessary and appropriate by the Early Intervention Official in conjunction with the required annual evaluation of the child's IFSP or more frequently in accordance with section 69-4.8(a)(12) of this Subpart. If additional evaluation or assessment procedures are necessary, the Early Intervention Official shall approve up to one more core evaluation and two supplemental evaluations prior to the next annual IFSP. Such additional evaluations must be required by and performed in accordance with the child's IFSP as specified in section 69-4,8(a) (13) of this Subpart. Any additional evaluations within that period shall be based on the indicators specified in section 69-4.8(a) (12), approved by the Early Intervention Official and the Commissioner of Health of the New York State Department of Health and required by and performed in accordance with the child's IFSP.
- (3) Service coordination as defined in section 69-4.1(k)(2)(xi) of this Subpart. Service coordination shall be provided by appropriate qualified personnel and billed in 15 minute units that reflect the time spent providing services in accordance with sections 69-4.6 and 69-4.7 of this Subpart, or billed under a capitation methodology as may be established by the Commissioner subject to the approval of the Director of the Budget. When units of time are billed, the first unit shall reflect the initial five to fifteen minutes of service provided and each unit thereafter shall reflect up to an additional fifteen minutes of service provided. Except for child/family interviews to make assessments and plans, contacts for service coordination need not be face-to-face encounters; they may include contacts with service providers or a child's parent, caregiver, daycare worker or other similar collateral contacts, in fulfillment of the child's IFSP.
- (4) Assistive technology as defined in section 69-4.1(k)(2)(ii) of this Subpart;
- (5) Home and community-based individual/collateral visit. This shall mean the provision by appropriate qualified personnel of early intervention services to an eligible child and/or parent(s) or other designated caregiver at the child's home or other natural setting in which children under three years of age are typically found (including day care centers, other than those located at the same premises as the early intervention provider, and family day care homes). Reimbursable home and community-based individual/collateral visits shall include basic and extended visits.
- (i) A basic visit is less than one hour in duration. Up to three (3) such visits provided by appropriate qualified personnel within different disciplines per day may be billed for each eligible child as specified in an approved IFSP without prior approval of the Early Intervention Official.
- (ii) An extended visit is one hour or more in duration. Up to three (3) such visits provided by appropriate qualified personnel within different disciplines per day may be billed for each eligible child as specified in an approved IFSP without prior approval of the Early Intervention Official.
- (iii) Notwithstanding subparagraphs (i) and (ii) of this paragraph, no more than three (3) basic and extended visits combined per day may be billed for each eligible child as specified in an approved IFSP without prior approval of the Early Intervention Official.
- (iv) A provider shall not bill for a basic and extended visit provided on the same day by appropriate qualified personnel within the same discipline without prior approval of the Early Intervention Official.

- (6) Office/facility-based individual/collateral visit. This shall mean the provision by appropriate qualified personnel of early intervention services to an eligible child and/or parent(s) or other designated caregiver at an approved early intervention provider's site (including day care centers located at the same premises as the early intervention provider). Up to one (1) visit per discipline and no more than three (3) office/facility-based visits per day may be billed for each eligible child as specified in an approved IFSP without prior approval of the Early Intervention Official.
- (7) Parent-child group visit. This shall mean the provision of early intervention services in a group comprised of parent(s) or other designated caregivers and eligible children, and a minimum of one appropriate professional qualified to provide early intervention services at an early intervention provider's site or a community-based site (e.g. day care center, family day care, or other community settings). Up to one (1) visit per day may be billed for each eligible child as specified in an approved IFSP without prior approval of the Early Intervention Official.
- (8) Basic group developmental intervention visit. This shall mean the provision of early intervention services by appropriate qualified personnel to eligible children in a group which may also include children without disabilities, at an approved early intervention provider's site or in a community-based setting where children under three years of age are typically found.
- (i) Up to one (1) group developmental intervention visit per day may be billed for each eligible child as specified in an approved IFSP without prior approval of the Early Intervention Official.
- (ii) For purposes of subparagraph (i) of this paragraph and subparagraphs (i) of paragraphs (9) through (11) of this subdivision, a group developmental intervention visit shall include a basic visit as described in this paragraph, an enhanced visit as described in paragraph (9) of this subdivision, a basic with one-to-one aide visit as described in paragraph (10) of this subdivision, or an enhanced with one-to-one aide visit as described in paragraph (11) of this subdivision.
- (9) Enhanced group developmental intervention visit. This shall mean a group developmental intervention visit as defined in paragraph (8) of this subdivision provided to a child who, due to age, significant medical needs (such as major feeding difficulties, severe orthopaedic impairment), significant behavior management needs and/or level of developmental functioning, require significantly more time and attention from adults during group activities.
- (i) Up to one (1) group developmental intervention visit per day may be billed for each eligible child as specified in an approved IFSP without prior approval of the Early Intervention Official.
- (10) Basic group developmental intervention with one-to-one aide visit. This shall mean the provision of early intervention services by appropriate qualified personnel to eligible children in a group which may also include children without disabilities, with attendance at the group developmental intervention session by an additional aide or appropriate qualified personnel. This visit must be provided at an approved early intervention provider's site or in a community-based setting where children under three years of age are typically found.
- (i) Up to one (1) group developmental intervention visit per day may be billed for each eligible child as specified in an approved IFSP without prior approval of the Early Intervention Official.
- (11) Enhanced group developmental intervention with one-to-one aide visit. This shall mean a group developmental intervention with one-to-one aide visit as defined in paragraph (10) of this subdivision provided to a child who, due to age, significant medical needs (such as major feeding difficulties, severe orthopaedic impairment), significant behavior management needs and/or level of developmental functioning, require significantly more time and attention from adults during group activities.
- (i) Up to one (1) group developmental intervention visit per day may be billed for each eligible child as specified in an approved IFSP without prior approval of the Early Intervention Official.
- (12) Family/caregiver support group visit. This shall mean the provision of early intervention services by appropriate qualified personnel to a group of parents or other designated caregivers (such as foster parents, day care staff) and/or siblings of eligible children for the purposes of:
- (i) enhancing their capacity to care for and/or enhance the development of the eligible child; and/or (ii) provide support, education, and guidance to such individuals relative to the child's unique developmental needs. Up to two (2) visits per day may be billed for each eligible child as specified in an approved IFSP without prior approval of the Early Intervention Official (for example, one (1) for parents or other designated caregivers and one (1) for sibling(s) in a given day).

- (13) The Early Intervention Official shall approve and notify the department of any visits provided in addition to those described in paragraphs (5) through (12) as may be required by and provided in accordance with the child's IFSP. If such additional visits are necessary, such notice shall be provided on a monthly basis on forms provided by the department.
- (d) The prices established pursuant to this section shall provide full reimbursement for the following:
- (1) physician services, nursing services, therapist services, technician services, nutrition services, psychosocial services, service coordination, and other related professional and paraprofessional expenses directly incurred by the approved provider;
- (2) space occupancy, except as provided in subdivision (f) of this section, and plant overhead costs;
- (3) all supplies directly related to the provision of early intervention services, except as provided in subdivision (g) of this section: and
- (4) administrative, personnel, business office, data processing, recordkeeping, housekeeping, and other related provider overhead expenses.
- (e) The price for each service shall be adjusted for regional differences in wage levels to reflect differences in labor costs for personnel providing direct care and support staff and shall include consideration of absentee data and child to professional to paraprofessional ratios.
- (f) Until June 30, 1996, those early intervention service providers authorized to provide services pursuant to section 236 of the Family Court Act during 1993, shall be reimbursed for actual allowable capital costs obligated prior to July 1, 1993 that are associated with the provision of early intervention services described in subdivision (c) of this section. Capital costs shall be defined as depreciation or amortization, and interest associated with acquisition and/or construction of the physical plant and lease expenses including leasehold improvements associated with the physical plant.
- (g) Assistive Technology Devices Reimbursement for approved assistive technology devices shall be at reasonable and customary charges approved by the Commissioner or her designee.

Revised: January 1999

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EXHIBIT "J"

CLINICAL PRACTICE GUIDELINE

Quick Reference Guide

for Parents and Professionals

AUTISM / PERVASIVE DEVELOPMENTAL **DISORDERS**

ASSESSMENT AND INTERVENTION FOR YOUNG CHILDREN (AGE 0-3 YEARS)

SPONSORED BY NEW YORK STATE DEPARTMENT OF HEALTH DIVISION OF FAMILY HEALTH **BUREAU OF EARLY INTERVENTION**

This guideline was developed by an independent panel of professionals and parents sponsored by the New York State Department of Health. The recommendations presented in this document have been developed by the panel, and do not necessarily represent the position of the Department of Health.

AUTISM/PERVASIVE DEVELOPMENTAL DISORDERS

Operant conditioning approaches are typically used in treating children with autism. At the most basic level, operant conditioning involves presenting a *stimulus* and then providing a *consequence* based on the child's response. For example, the therapist might show the child ten pictures (this would be the stimulus) and then give a reinforcing consequence each time the child responds correctly.

♦ A reinforcer is a consequence that increases the probability of appropriate responses.

Examples of possible reinforcers for young children include verbal praise, an edible treat, or a desired toy.

Consequences may also be used to decrease the probability of <u>inappropriate responses</u>. Examples include verbal disapproval or withholding a desired object or activity.

Effective consequences are different for each child and may be determined through a formal assessment process.

Intensive Behavioral and Educational Intervention Programs

The three basic elements of intensive behavioral and educational intervention programs include:

- systematic use of behavioral teaching techniques and intervention procedures
- intensive direct instruction by the therapist, usually on a oneto-one basis
- extensive parent training and support so that parents can provide additional hours of intervention

It is recommended that intensive behavioral programs include a *minimum* of approximately 20 hours per week of individualized behavioral intervention using ABA techniques (not including time spent by parents).

The precise number of hours of behavioral intervention may vary depending on a variety of child and family characteristics.



QUICK REFERENCE GUIDE

Considerations in determining the frequency and intensity of intervention include:

- age of the child
- severity of autistic symptoms
- rate of progress
- other health considerations
- tolerance of the child for the intervention
- family participation

It is important to monitor the child's progress on a regular basis. Monitoring the child's progress may lead to a conclusion that intervention times need to be increased or decreased.

To ensure consistency in the intervention approach, it is important that parents be trained in behavioral techniques and be encouraged to provide additional hours of instruction to the child.

Basic Principles of Specific **Behavioral Intervention Techniques**

It is important to clearly identify target behaviors that need to be addressed for each child and to individualize intervention strategies.

A continuum of behavioral strategies may be important as the child progresses. Strategies generally progress from more individualized (structured one-toone sessions) to more general interactions (such as with peers in social groups).

As the child's skills progress, it is important to use behavioral techniques that facilitate generalization of new behaviors from structured environments to more natural settings.

It is important to conduct a reinforcer assessment to determine which items will serve as reinforcers for a particular child. It is important to recognize that there are several types of potential reinforcers, such as sensory, edible, and social (such as verbal praise).

APPENDIX B

NEW YORK STATE EARLY INTERVENTION PROGRAM

- B-1 Early Intervention Program: Relevant Policy Information
- B-2 EARLY INTERVENTION PROGRAM: DESCRIPTION
- B-3 OFFICIAL EARLY INTERVENTION PROGRAM DEFINITIONS
- B-4 TELEPHONE NUMBERS OF MUNICIPAL EARLY INTERVENTION PROGRAMS

AUTISM/PERVASIVE DEVELOPMENTAL DISORDERS

- EIP *18 Under the NYS Early Intervention Program, early intervention services must be included in a child and family's Individualized Family Service Plan (IFSP) and provided at no cost to parents, under the public supervision of Early Intervention Officials and the State Department of Health by qualified personnel, as defined in State regulation. (See Appendix B-4 for a list of Local Numbers for County Early Intervention Programs and Appendix B-3 for the definition of qualified personnel.) (page 30)
- EIP 19 Under the NYS Early Intervention Program, early intervention services can be delivered in a wide variety of home- and community-based settings. Early intervention services can be provided to an individual child, to a child and parent or other family member or caregiver, to parents and children in groups, and to groups of eligible children. (These groups can also include typically developing peers.) Family support groups are also available.

(page 30)

EIP * 20 Under the NYS Early Intervention Program, an IFSP must be in place for children within 45 days of referral to the Early Intervention Official. The IFSP must include a statement of the major outcomes expected for the child and family, and the services needed by the child and family. The IFSP must be reviewed every 6 months and evaluated annually. Information from ongoing assessments should be used in IFSP reviews and annual evaluations.

(page 30)

- EIP 21 An IFSP may be amended any time the parent(s) and the Early Intervention Official agree that a change is needed to better meet the needs of the child and family. (page 30)
- EIP * 22 The type, intensity, frequency, and duration of early intervention services provided to a child and family under the NYS Early Intervention Program are determined through the IFSP process. All services in the IFSP must be agreed to by the parent and the Early Intervention Official. If disagreements arise about what should be included in the IFSP, parents can seek due process through mediation and/or an impartial hearing.

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EXHIBIT "K"

National Institute of Neurological Disorders and Stroke

Autism Fact Sheet

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Table of Contents (click to jump to sections)

What is autism?
What are some common signs of autism?
How is autism diagnosed?
What causes autism?
What role does inheritance play?
Do symptoms of autism change over time?
How is autism treated?
What research is being done?
Where can I get more information?

What is autism?

Autism (sometimes called "classical autism") is the most common condition in a group of developmental disorders known as the autism spectrum disorders (ASDs). Autism is characterized by impaired social interaction, problems with verbal and nonverbal communication, and unusual, repetitive, or severely limited activities and interests. Other ASDs include Asperger syndrome, Rett syndrome, childhood disintegrative disorder, and pervasive developmental disorder not otherwise specified (usually referred to as PDD-NOS). Experts estimate that three to six children out of every 1,000 will have autism. Males are four times more likely to have autism than females.

What are some common signs of autism?

There are three distinctive behaviors that characterize autism. Autistic children have difficulties with social interaction, problems with verbal and nonverbal communication, and repetitive behaviors or narrow, obsessive interests. These behaviors can range in impact from mild to disabling.

The hallmark feature of autism is impaired social interaction. Parents are usually the first to notice symptoms of autism in their child. As early as infancy, a baby with autism may be unresponsive to people or focus intently on one item to the exclusion of others for long periods of time. A child with autism may appear to develop normally and then withdraw and become indifferent to social engagement.

Children with autism may fail to respond to their name and often avoid eye contact with other people. They have difficulty interpreting what others are thinking or feeling because they can't understand social cues, such as tone of voice or facial expressions, and don't watch other people's faces for clues about appropriate behavior. They lack empathy.

Many children with autism engage in repetitive movements such as rocking and twirling, or in self-abusive behavior such as biting or head-banging. They also tend to start speaking later than other children and may refer to themselves by name instead of "I" or "me." Children with autism don't know how to play interactively with other children. Some speak in a sing-song voice about a narrow range of favorite topics, with little regard for the interests of the person to whom they are speaking.

Many children with autism have a reduced sensitivity to pain, but are abnormally sensitive to sound, touch, or other sensory stimulation. These unusual reactions may contribute to behavioral symptoms such as a resistance to being cuddled or hugged.

Children with autism appear to have a higher than normal risk for certain co-existing conditions, including fragile X syndrome (which causes mental retardation), tuberous sclerosis (in which tumors grow on the brain), epileptic seizures, Tourette syndrome, learning disabilities, and attention deficit disorder. For reasons that are still unclear, about 20 to 30 percent of children with autism develop epilepsy by the time they reach adulthood. While people with schizophrenia may show some autistic-like behavior, their symptoms usually do not appear until the late teens or

early adulthood. Most people with schizophrenia also have hallucinations and delusions, which are not found in autism.

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How is autism diagnosed?

Autism varies widely in its severity and symptoms and may go unrecognized, especially in mildly affected children or when it is masked by more debilitating handicaps. Doctors rely on a core group of behaviors to alert them to the possibility of a diagnosis of autism. These behaviors are:

- impaired ability to make friends with peers
- impaired ability to initiate or sustain a conversation with others
- absence or impairment of imaginative and social play
- stereotyped, repetitive, or unusual use of language
- restricted patterns of interest that are abnormal in intensity or focus
- preoccupation with certain objects or subjects
- inflexible adherence to specific routines or rituals

Doctors will often use a questionnaire or other screening instrument to gather information about a child's development and behavior. Some screening instruments rely solely on parent observations; others rely on a combination of parent and doctor observations. If screening instruments indicate the possibility of autism, doctors will ask for a more comprehensive evaluation.

Autism is a complex disorder. A comprehensive evaluation requires a multidisciplinary team including a psychologist, neurologist, psychiatrist, speech therapist, and other professionals who diagnose children with ASDs. The team members will conduct a thorough neurological assessment and in-depth cognitive and language testing. Because hearing problems can cause behaviors that could be mistaken for autism, children with delayed speech development should also have their hearing tested. After a thorough evaluation, the team usually meets with parents to explain the results of the evaluation and present the diagnosis.

Children with some symptoms of autism, but not enough to be diagnosed with classical autism, are often diagnosed with PDD-NOS. Children with autistic behaviors but well-developed language skills are often diagnosed with Asperger syndrome. Children who develop normally and then suddenly deteriorate between the ages of 3 to 10 years and show marked autistic behaviors may be diagnosed with childhood disintegrative disorder. Girls with autistic symptoms may be suffering from Rett syndrome, a sex-linked genetic disorder characterized by social withdrawal, regressed language skills, and hand wringing.

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What causes autism?

Scientists aren't certain what causes autism, but it's likely that both genetics and environment play a role. Researchers have identified a number of genes associated with the disorder. Studies of people with autism have found irregularities in several regions of the brain. Other studies suggest that people with autism have abnormal levels of serotonin or other neurotransmitters in the brain. These abnormalities suggest that autism could result from the disruption of normal brain development early in fetal development caused by defects in genes that control brain growth and that regulate how neurons communicate with each other. While these findings are intriguing, they are preliminary and require further study. The theory that parental practices are responsible for autism has now been disproved. top

What role does inheritance play?

Recent studies strongly suggest that some people have a genetic predisposition to autism. In families with one autistic child, the risk of having a second child with the disorder is approximately 5 percent, or one in 20. This is greater than the risk for the general population. Researchers are looking for clues about which genes contribute to this increased susceptibility. In some cases, parents and other relatives of an autistic child show mild impairments in social and communicative skills or engage in repetitive behaviors. Evidence also suggests that some emotional disorders, such as manic depression, occur more frequently than average in the families of people with autism.

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Do symptoms of autism change over time?

For many children, autism symptoms improve with treatment and with age. Some children with autism grow up to lead normal or near-normal lives. Children whose language skills regress early in life, usually before the age of 3, appear to be at risk of developing epilepsy or seizure-like brain activity. During adolescence, some children with autism may become depressed or experience behavioral problems. Parents of these children should be ready to adjust treatment for their child as needed. top

How is autism treated?

There is no cure for autism. Therapies and behavioral interventions are designed to remedy specific symptoms and can bring about substantial improvement. The ideal treatment plan coordinates therapies and interventions that target the core symptoms of autism: impaired social interaction, problems with verbal and nonverbal communication, and obsessive or repetitive routines and interests. Most professionals agree that the earlier the intervention, the better.

- Educational/behavioral interventions: Therapists use highly structured and intensive skill-oriented training sessions to help children develop social and language skills. Family counseling for the parents and siblings of children with autism often helps families cope with the particular challenges of living with an autistic child.
- Medications: Doctors often prescribe an antidepressant medication to handle symptoms of anxiety, depression, or obsessive-compulsive disorder. Anti-psychotic medications are used to treat severe behavioral problems. Seizures can be treated with one or more of the anticonvulsant drugs. Stimulant drugs, such as those used for children with attention deficit disorder (ADD), are sometimes used effectively to help decrease impulsivity and hyperactivity.
- Other therapies: There are a number of controversial therapies or interventions available for autistic children, but few, if any, are supported by scientific studies. Parents should use caution before adopting any of these treatments.

top

What research is being done?

The National Institute of Neurological Disorders and Stroke (NINDS) is one of the federal government's leading supporters of biomedical research on brain and nervous system disorders. The NINDS conducts research in its laboratories at the National Institutes of Health in Bethesda, Maryland, and also awards grants to support research at universities and other facilities.

As part of the Children's Health Act of 2000, the NINDS and three sister institutes have formed the NIH Autism Coordinating Committee to expand, intensify, and coordinate NIH's autism research. Eight dedicated research centers across the country have been established as "Centers of Excellence in Autism Research" to bring together researchers and the resources they need. The Centers are conducting basic and clinical research, including investigations into causes, diagnosis, early detection, prevention, and treatment, such as the studies highlighted below:

- investigators are using animal models to study how the neurotransmitter serotonin establishes connections between neurons in hopes of discovering why these connections are impaired in autism
- researchers are testing a computer-assisted program that would help autistic children interpret facial expressions
- a brain imaging study is investigating areas of the brain that are active during obsessive/repetitive behaviors in adults and very young children with autism
- other imaging studies are searching for brain abnormalities that could cause impaired social communication in children with autism
- clinical studies are testing the effectiveness of a program that combines parent training and medication to reduce the disruptive behavior of children with autism and other ASDs

top

Where can I get more information?

For more information on neurological disorders or research programs funded by the National Institute of Neurological Disorders and Stroke, contact the Institute's Brain Resources and Information Network (BRAIN) at:

BRAIN P.O. Box 5801 Bethesda, MD 20824 (800) 352-9424 http://www.ninds.nih.gov

Information also is available from the following organizations:

Association for Science in Autism Treatment

P.O. Box 188 Crosswicks, NJ 08515-0188 info@asatonline.org http://www.asatonline.org

Tel: 781-397-8943 (need to update this number) Fax: 781-397-8887 (need to update this number)

Autism Network International (ANI)

P.O. Box 35448 Syracuse, NY 13235-5448 jisincla@mailbox.syr.edu http://ani.autistics.org

Autism Society of America

7910 Woodmont Ave. Suite 300 Bethesda, MD 20814-3067 http://www.autism-society.org

Tel: 301-657-0881 800-3AUTISM (328-8476)

Fax: 301-657-0869

MAAP Services for Autism, Asperger's, and PDD

P.O. Box 524 Crown Point, IN 46308 info@maapservices.org http://www.maapservices.org

Tel: 219-662-1311 Fax: 219-662-0638

National Dissemination Center for Children with Disabilities

U.S. Dept. of Education, Office of Special Education Programs P.O. Box 1492 Washington, DC 20013-1492 nichcy@aed.org http://www.nichcy.org

Tel: 800-695-0285 Fax: 202-884-8441

Autism National Committee (AUTCOM)

P.O. Box 429 Forest Knolls, CA 94933 http://www.autcom.org

Autism Research Institute (ARI)

4182 Adams Avenue San Diego, CA 92116 director@autism.com

http://www.autismresearchinstitute.com

Tel: 619-281-7165 Fax: 619-563-6840

Cure Autism Now (CAN) Foundation

5455 Wilshire Blvd. Suite 2250 Los Angeles, CA 90036-4234 info@cureautismnow.org http://www.cureautismnow.org

Tel: 323-549-0500 888-8AUTISM (828-8476)

Fax: 323-549-0547

Autism Speaks/National Alliance for Autism Research

2 Park Avenue 11th Floor New York, NY 10016 contactus@autismspeaks.org http://www.autismspeaks.org

Tel: 212-252-8584 California: 310-230-3568

Fax: 212-252-8676

National Institute of Child Health and Human **Development (NICHD)**

National Institutes of Health, DHHS 31 Center Drive, Rm. 2A32 MSC 2425 Bethesda, MD 20892-2425 http://www.nichd.nih.gov

Tel: 301-496-5133 Fax: 301-496-7101 National Institute on Deafness and Other **Communication Disorders Information Clearinghouse** 1 Communication Avenue Bethesda, MD 20892-3456 nidcdinfo@nidcd.nih.gov

http://www.nidcd.nih.gov Tel: 800-241-1044 800-241-1055 (TTD/TTY) National Institute of Mental Health (NIMH)

National Institutes of Health, DHHS 6001 Executive Blvd. Rm. 8184, MSC 9663 Bethesda, MD 20892-9663

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